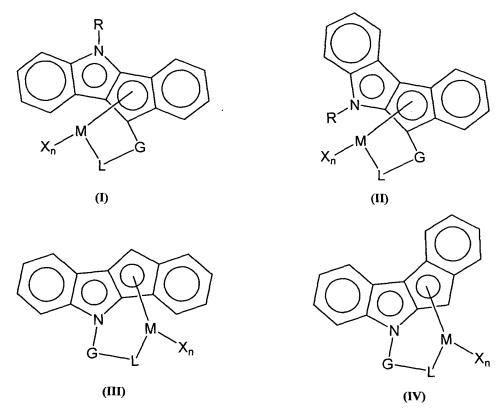
## We claim:

- 1. A multi-catalyst system that comprises
- (a) catalyst A, a supported bridged indenoindolyl transition metal complex; and
- (b) catalyst B, a supported non-bridged indenoindolyl transition metal complex;

wherein A and B are separately supported.

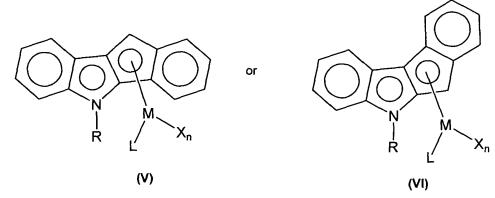
2. The catalyst system of claim 1 wherein the complex of catalyst A has the general structure of I, II, III or IV:



in which M is a transition metal; G is a bridge group; L is a ligand that is covalently bonded to G and M; R is selected from the group consisting of alkyl, aryl, aralkyl, boryl and silyl groups; X is selected from the group consisting of alkyl, aryl, alkoxy, aryloxy, halide, dialkylamino, and siloxy groups; n satisfies the valence of M; and one or more of the remaining ring

atoms are optionally independently substituted by alkyl, aryl, aralkyl, alkylaryl, silyl, halogen, alkoxy, aryloxy, siloxy, nitro, dialkyl amino, or diaryl amino groups.

- 3. The catalyst system of claim 2 wherein L is selected from the group consisting of cyclopentadienyls, indenyls, fluorenyls, boraarys, pyrrolyls, azaborolinyls, quinolinyls, indenoindolyls, phosphinimines, and alkylaminos.
- **4.** The catalyst system of claim **2** wherein G is selected from the group consisting of dialkylsilyl, diarylsilyl, methylene, ethylene, isopropylidene, and diphenylmethylene.
- 5. The catalyst system of claim 2 wherein the bridged complex has the general structure of I or II and wherein M is a Group 4 transition metal, L is alkylamido, and G is dialkylsilyl.
- **6.** The catalyst system of claim **5** wherein M is Ti or Zr, L is t-butylamino, G is dimethylsilyl, and X is halide or alkyl.
- 7. The catalyst system of claim 2 wherein the bridged complex has the general structure of III or IV and wherein M is a Group 4 transition metal, L is alkylamido, and G is dialkylsilyl.
- **8.** The catalyst system of claim **7** wherein M is Ti or Zr, L is t-butylamino, G is dimethylsilyl, and X is halide or alkyl.
- **9.** The catalyst system of claim **1** wherein the non-bridged complex of catalyst B has the general structure of



in which R is selected from the group consisting of alkyl, aryl, aralkyl, boryl and silyl groups; M is a Group 4-6 transition metal; L is selected from the group consisting of substituted or non-substituted cyclopentadienyls, indenyls, fluorenyls, boraarys, pyrrolyls, azaborolinyls, quinolinyls, indenoindolyls, and phosphinimines; X is selected from the group consisting of alkyl, aryl, alkoxy, aryloxy, halide, dialkylamino, and siloxy groups, and n satisfies the valence of M; and one or more of the remaining ring atoms are optionally substituted by alkyl, aryl, aralkyl, alkylaryl, silyl, halogen, alkoxy, aryloxy, siloxy, nitro, dialkyl amino, or diaryl amino groups.

- **10.** The catalyst system of claim **9** wherein R is methyl, L is cyclopentadienyl; M is Zr; X is chloride, and n is 2.
- 11. The catalyst system of claim 1 wherein catalyst A further comprises an activator selected from the group consisting of alumoxanes, alkyl aluminums, alkyl aluminum halides, anionic compounds of boron or aluminum, trialkylboron and triarylboron compounds, and mixtures thereof.
- **12.** The catalyst system of claim **11** wherein the activator is an alumoxane.
- **13.** The catalyst system of claim **1** wherein catalyst B further comprises an activator selected from the group consisting of alumoxanes, alkyl aluminums, alkyl aluminum halides, anionic compounds of boron or aluminum, trialkylboron and triarylboron compounds, and mixtures thereof.
- **14.** The catalyst system of claim **13** wherein the activator is an alumoxane.

- **15.** The catalyst system of claim **1** wherein the support in catalyst A and catalyst B is silica.
- **16.** A process comprising polymerizing an  $\alpha$ -olefin in the presence of the catalyst system of claim **1**.
- **17.** The process of claim **16** which produces a polyolefin having bi- or multi-modal molecular weight distribution.
- 18. The process of claim 16 wherein the  $\alpha$ -olefin is selected from the group consisting of ethylene, propylene, 1-butene, 1-pentene, 1-hexene, 1-octene, 4-methyl-1-pentene, and mixtures thereof.
- **19.** A process comprising polymerizing an  $\alpha$ -olefin in the presence of a multi-catalyst system that comprises
- (a) catalyst A, a supported bridged indenoindolyl transition metal complex; and
- (b) catalyst B, a supported non-bridged indenoindolyl transition metal complex;

wherein A and B are separately supported, said process produces an polyolefin having bi- or multi-modal molecular weight distribution.